

AMENDMENTS TO THE CLAIMS

Claims 1-52 (cancelled)

53. (new) A method to provide information of a system in a network, the method comprising the steps of:

creating a local data structure in a network device with an attached end system; and
populating said local data structure with alias information about a locally attached end system identifier and a source port identifier of said network device.

54. (new) The method of claim 53, wherein said step of populating said local data structure is performed in at least one of an implicit manner and an explicit manner.

55. (new) The method of claim 53, wherein said end system identifier includes a MAC address of the attached end system.

56. (new) The method of claim 53, wherein said data structure can further hold additional information identifying at least one of an owner switch, an alias type, a VLAN policy, and a VLAN ID.

57. (new) A method to provide a virtual data structure of a system in a network, the method comprising the steps of:

creating a data structure in a network device with an attached end system;
populating said data structure with alias information and an attached end system identifier; and
reading data from two or more data structures in a network.

58. (new) The method of claim 57, wherein the said virtual data structure is used to establish an association of a MAC address to alias information for a system in the network.

59. (new) The method of claim 57 wherein said virtual data structure is used to establish an association of a MAC address to an IP address for a system in the network.

60. (new) The method of claim 57 further comprising the step of, locating a device in the network.

61. (new) The method of claim 60, wherein the step of locating includes a step of constructing a query for said virtual data structure to retrieve information to locate the device.

62. (new) The method of claim 60, wherein a location of the device comprises an identifier of a network device having said device locally attached.

63. (new) The method of claim 60, wherein a location of the device comprises a network device and a port identifier of the network device having said device locally attached.

64. (new) A method to reduce at least one of broadcast traffic and unknown traffic flooding in a network using information held by a virtual data structure, the method comprising the steps of:

receiving at least one of a broadcast frame and an unknown destination frame; and
reading information from the virtual data structure to establish a MAC address destination of at least one of said broadcast frame and said unknown destination frame.

65. (new) The method of claim 64 further comprising the step of, forwarding at least one of said broadcast frame and said unknown destination frame to said MAC address destination.

66. (new) The method of claim 64 further comprising the step of, sending information from the virtual data structure to a selected network device to support said selected network device's direct communication with said MAC address destination.

67. (new) A network device comprising,
a port to receive network traffic; and

a data processing mechanism configured to create a local data structure that includes at least alias information about a locally attached end system identifier and a source port identifier of said network device.